**MAR NOTICE NO. 32-18-290 SMALL BUSINESS IMPACT DETERMINATION**

This documents the determination of whether a small business impact statement must be prepared to comply with 2-4-111, MCA.

**Executive Summary:** The Department of Livestock Milk Control Bureau has determined that 56 producers (dairy farms) would be positively impacted by the proposed rules. The Milk Control Bureau developed models to simulate milk utilization value calculations for 2015 through 2017. The bureau estimates that the proposed rules would have increased revenue for these small businesses by 3% - 4% for the period, depending which Montana Class III Butterfat Price Differential would have been in effect. No other small businesses were identified that would experience significant and direct impact.

**Agency Submitting Rule:** Department of Livestock

**Subject Matter of Rule:** Producer Pricing Rules (ARM.32.24.480)

**Definitions:**

***Significant and Direct Impact:*** The Governor's Office Economic Development (GOED) defines that a "significant" impact means a proposed rule that will result in significant operational changes, costs, or advantages/disadvantages for small businesses. GOED interprets the term "directly" to mean impacts that result from the application of a proposed rule directly to small businesses. If a proposed rule does not and cannot be applied directly to small businesses, the requirements of 2-4-111, MCA do not apply.

***Small Business:*** As defined in 2-4-102(13), MCA, "small business means a business entity, including its affiliates, that is independently owned and operated and that employs fewer than 50 full-time employees". GOED interprets small business to apply to privately owned, for profit entities that may be identified by class or group.

***Department:*** Means the Department of Livestock

***Hundredweight:*** A hundredweight is a unit of measure of weight equal to one hundred pounds and is abbreviated "cwt".

***Classes of utilization:*** See definition in ARM 32.24.150(4).

***Advanced prices:*** Means prices for milk are announced prior to when the milk to which the prices apply is produced by a dairy and utilized by a plant.

***Skim milk:*** Means the portion of milk that is not butterfat. In a hundredweight of milk that has 3.5% butterfat content, there is 96.5 lbs of skim milk.

***Butterfat:*** Means the portion of milk that is fat. In a hundredweight of milk that has 3.5% butterfat content, there is 3.5 lbs of butterfat.

***United States Department of Agriculture (USDA) Announcement of Advanced Prices and Pricing Factors:*** Means the monthly price announcement published by the USDA Agricultural Marketing Service (AMS) to announce the prices and pricing factors described in paragraphs (a), (b), (c), (e), (f), and (q) of 7 CFR 1000.50. This advanced price announcement is announced on or before the 23rd day of the month and applies to milk

received during the following month. USDA-AMS generally publishes the announcement on the Wednesday following the first two full weeks of the month. For producer prices in markets regulated by USDA (federal milk marketing orders or "federal orders"), this price announcement sets the base Class I milk price and the Class II skim milk price. This price announcement's Advanced Butterfat Pricing Factor, Advanced Class III Skim Milk Pricing Factor, and Advanced Class IV Skim Milk Pricing Factor are based upon the same formulas as similar prices announced in the USDA-AMS Announcement of Class and Component Prices, but the reference market prices of dairy products used in calculations are collected by USDA from a different period. Prices announced in the USDA-AMS Announcement of Advanced Prices and Pricing Factors are based on a weighted average of the most recent two weekly prices announced by USDA National Agricultural Statistics Service (NASS) before the 24th day of the month.

***United States Department of Agriculture (USDA) Announcement of Class and Component Prices:*** Means the monthly price announcement published by the USDA Agricultural Marketing Service (AMS) to announce the prices and pricing factors described in paragraphs (g) through (p) of 7 CFR 1000.50. This price announcement is announced on or before the 5th day of the month following the month to which the announcement's prices apply. For producer prices in markets regulated by USDA (federal milk marketing orders or "federal orders"), this price announcement sets the Class II butterfat price, Class III skim milk price, Class IV skim milk price, and the butterfat price for Class III and Class IV. The Class II milk price (at 3.5% butterfat content) announced in the announcement is based on the Class II Skim Milk Price published in the USDA-AMS Announcement of Advanced Prices and Pricing Factors that applies to the month and the Class II Butterfat Price announced in the USDA-AMS Announcement of Class and Component Prices. The reference market prices of dairy products used to calculate prices announced in the USDA-AMS Announcement of Class and Component Prices are based on a weighted average for the preceding month of weekly prices announced by USDA-NASS on or before the 5th day of the month for milk received during the preceding month.

**Narrative:**

The Board of Milk Control fixes minimum producer prices for classes of utilization of milk through formulas established in administrative rule, in accordance with 81-23-302(1), MCA. "Producer prices" refers to the prices plants or distributors located in Montana pay producers whose dairies are located in Montana for raw milk. Producer prices for classes of utilization of milk are set by formulas provided for in ARM 32.24.480. Producer prices for the classes of utilization of milk change each month and are based on reference prices that are market-based and published by USDA.

It is necessary to have separate pricing for skim milk and butterfat because the butterfat price is much higher than the skim milk price and because butterfat content of milk varies between dairies and is a property of milk that dairies can manage.

The amendments to ARM 32.24.480 proposed in MAR 32-18-290 would change the price formulas used to determine the price of raw milk purchased from Montana producers by Montana plants that is utilized as Class II milk and Class III milk.

- Advanced Prices. The proposed formulas for Class II and Class III milk are advanced price formulas. Advanced prices provide a benefit to processors in terms of financial planning, product pricing, and operational planning, since advanced prices establish the unit raw product cost prior to the purchase and utilization of milk. Advanced prices improve the ability of producers to estimate the blend price they will receive for their milk.
- Class II. The proposed price formulas for Class II milk would be advanced prices. Current Montana Class II price formulas are advanced prices.

- The Montana Class II skim milk price would be the Class II skim milk price published in the USDA Announcement of Advanced Prices and Pricing Factors, converted to dollars per pound of skim milk.
- The Montana Class II butterfat price would be the Advanced Butterfat Pricing Factor published in the USDA Announcement of Advanced Prices and Pricing Factors plus $0.007 per pound of butterfat.
    - The Class II Butterfat Price published in USDA-AMS Announcement of Class and Component Prices is the Butterfat Price (which applies to Class III and Class IV milk and is announced in the same price announcement) plus $0.007 per pound of butterfat. To follow the same price formula structure, the proposed advanced Montana Class II butterfat price would add $0.007 per pound to the Advanced Butterfat Pricing Factor (announced in the USDA-AMS Announcement of Advanced Prices and Pricing Factors). This would result in the Montana Class II Butterfat Price formula have the same factors and adjustments as the USDA-AMS Class II Butterfat Price formula, other than that the price formula would be an advanced formula with a different reference price data collection period.

- Class III. The proposed price formulas for Class III milk would be advanced prices. Current Montana Class III price formulas are advanced prices.
    - The Montana Class III skim milk price would be the lower of the Advanced Class III Skim Milk Pricing Factor or the Advanced Class IV Skim Milk Pricing Factor published in the USDA Announcement of Advanced Prices and Pricing Factors, converted to dollars per pound of skim milk.
        - The Board of Milk Control combined the federal definitions of Class III milk and Class IV milk in the definition of (Montana) Class III milk, as allowed by 81-23-101(1)(b)(ii), MCA.
        - Montana's current Class III skim milk price formula references nonfat dry milk, a product that falls under the federal Class IV.
        - The Advanced Class III Skim Milk Pricing Factor and the Advanced Class IV Skim Milk Pricing Factor published in the USDA-AMS Announcement of Advanced Prices and Pricing Factors are based on the same formulas as the Class III Skim Milk Price and the Class IV Skim Milk Price published in the USDA-AMS Announcement of Class and Component Prices. However, the prices used in the calculations are based on reference price data from a different data collection period.
    - The Montana Class III butterfat price would be the Advanced Butterfat Pricing Factor published in the USDA Announcement of Advanced Prices and Pricing Factors less a Class III Montana Butterfat Price Differential.
        - Other than the Class III Montana Butterfat Price Differential, the proposed formula would make the Montana Class III Butterfat Price have the same factors and adjustments as the USDA-AMS Butterfat Price (used for Class III and Class IV) published in the USDA-AMS Announcement of Class and Component Prices. However, the formula would be an advanced formula with a different reference price data collection period.
        - The Class III Montana Butterfat Price Differential would reduce the Montana Class III butterfat price from the USDA Advanced Butterfat Pricing Factor. The price differential would decrease in two steps to phase in higher Montana Class III butterfat prices over a nine-month period, if the proposed rule is adopted and effective for October 2018 prices. At the end of the phase-in, a $0.10/lb price differential would remain to encourage expanded Class III processing in Montana and to benefit current Montana Class I processors who market cream to distant out-of-state butter plants. The proposed Class III Montana Butterfat Price Differential would have the following schedule:
            - $0.20/lb of butterfat for Class III butterfat utilized before January 1, 2019

- $0.15/lb of butterfat for Class III butterfat utilized from January 1, 2019 through June 30, 2019
- $0.10/lb of butterfat for Class III butterfat utilized after June 30, 2019

Several things influence potential financial impact of the proposed changes in Class II and Class III price formulas:

- The proposed formulas have different formula structures than the current Class II milk and Class III milk price formulas. The formulas apply factors to reference commodity prices to establish a skim milk price or a butterfat price. Butter is the reference commodity used to determine butterfat prices. In the formulas, "make factors" or "make allowances" allow for cost recovery and profit margin, and yield factors relate to the quantity of a product that can be made from skim milk or butterfat. The factors in Montana's current Class II price formulas and Class III price formulas, which were established in 1967, have been modified in minor ways since, and do not resemble the factors in the relevant USDA-AMS price formulas.
    - Class III Butterfat Formula
        - **Federal Butterfat Price Formula: (Butter Price – 0.1715) * 1.211**
            - Make allowance: "0.1715" is the USDA's make allowance in units of dollars per pound of butter
            - Yield factor: "1.211" is the USDA's yield factor in units of pounds of butter per pound of butterfat
        - **Current Montana Class III Butterfat Price Formula: (Butter Price – 0.0895) * 0.9**
            - Butter price adjustment: "0.0895" is a negative price adjustment to the Grade AA butter price. Analysis of the history of the price formula identified that the negative adjustment was established in 1998 to discount the butter price as the result of the Chicago Mercantile Exchange discontinuing the trade of Grade A butter. The formula adjustment was to reduce the Grade AA price to be similar to the Grade A butter price that had been used as the reference price in the formula prior to the rule change in 1998.
            - Make allowance: The Montana Class III butterfat formula does not appear to have a make allowance.
                - Conceptually, the "0.9" factor in the current Montana Class III butterfat price formula could be a combination of a make factor and a yield factor. If this were to be the case and the federal yield factor were used, it would mean that the make allowance is a percentage discount (25.68%) of the adjusted butter price. Using a butter price of $2.156/lb, the Montana adjusted butter price under the current formula would be $2.0665, and the make allowance would be $0.531/lb, in contrast to the $0.1715/lb federal make allowance. Butter prices have varied seasonally and have been trending higher. As butter prices increase, the difference in the price formula results increase.
            - Yield factor: "0.9" is less than the 1.211 lbs of butter produced from one pound of butterfat. As a result, the current Montana Class III butterfat price is <u>always</u> less than the price of butter. With the federal butterfat price formula, the butterfat price is only less than the price of butter when the price of Grade AA butter is less than $0.9843/lb, which has not occurred since 2002.
            - With the current formula, the Montana Class III butterfat price would only be equal to the federal butterfat price if Grade AA butter was less than $0.4088/lb. In the 2015 – 2017 time period the minimum CME butter price

used to calculate Montana's Class III butterfat price was $1.55/lb; while the maximum price was $2.885/lb; and the average price was $2.156/lb.

        - As a result of the differences of the structure of the formulas and the yield factor, the more the market price of Grade AA butter increases, the more the federal Class III and Class IV butterfat price exceeds the Montana Class III butterfat price. From 2015 through 2017, federal Class III and Class IV butterfat prices have, on average, been approximately 22% higher than Montana Class III butterfat prices. Roughly 50% of the butterfat produced by Montana producers is utilized in Class III. In recent years, nearly half the value of raw milk has come from butterfat.
    - While the formula structure underlying the proposed formulas for the Montana Class II skim milk, Montana Class II butterfat, and Montana Class III skim milk would change, the magnitude of the price changes would be less than the magnitude of change that would result from the proposed Class III butterfat formula. The impact of the change to Class II and Class III utilization values is smaller. Changing these current price formulas would result in the use of underlying price formulas that are more relevant because they would be similar to those used in the national marketplace.
- The proposed formulas would change reference prices and the data collection period used to determine the reference prices.
    - Class II and Class III Butterfat Price Formulas
        - Currently, the reference price used to calculate Montana's Class II butterfat price and Class III butterfat price is the CME Cash Trade Price for Grade AA butter, for the last day of the week that precedes the USDA Announcement of Advanced Prices and Pricing Factors. As such, the price on a single trading day sets the following month's butterfat price for Class II and Class III milk in Montana.
        - The reference price used in the proposed formulas is the national weighted average butter price reported by USDA-NASS for the two weeks prior to the USDA Announcement of Advanced Prices and Pricing Factors. This would reduce the risk of price volatility of a single trading day having an excessive influence on the following month's Class II and Class III butterfat prices.
    - Class II and Class III Skim Milk Prices
        - Currently, the reference price used to calculate Montana's Class II skim milk price and Class III skim milk price is the average price of nonfat dry milk published in the USDA Dairy Market News for the week preceding the USDA Announcement of Advanced Prices and Pricing Factors.
        - The reference price underlying the proposed Class II skim milk price formula is the national weighted average nonfat dry milk price reported by USDA-NASS for the two weeks prior to the USDA Announcement of Advanced Prices and Pricing Factors. The longer reference price data collection period reduces the influence of market volatility on the following month's Class II skim price.
        - The reference prices underlying the proposed Class III skim milk price formula are the national weighted average prices (reported by USDA-NASS for the two weeks prior to the USDA Announcement of Advanced Prices and Pricing Factors) of nonfat dry milk, cheese prices (40 lb block cheese and 500 lb barrel cheddar cheese sales), dry whey, and grade AA butter. Montana's Class III skim milk price would be determined by more than just the nonfat dry milk reference price. In recent years, the Advanced Class IV Skim Milk Price has been lower than the Advanced Class III Skim Milk Price. By establishing the Montana Class III skim price as being the lower of the Advanced Class III Skim Milk Price or the Advanced Class IV Skim Milk Price, the Montana Class III Skim Milk Price formula would encourage expanded Class III processing in Montana and would assure that skim milk in bulk cream sales to out-of-state butter plants is valued

at a price that is not higher than the Advanced Class IV Skim Milk price. The longer reference price data collection period reduces the influence of market volatility on the following month's Class III skim price.

- The proposed deduction of the Class III Montana Butterfat Price Differential from the USDA Advanced Butterfat Pricing Factor would cause the difference between the proposed Class III butterfat formula and the current formula to be less than it is without the price differential. As proposed, the difference between the proposed Class III butterfat price formula and current formula would decrease until the Montana Class III butterfat price is $0.10/lb less than the USDA Advanced Butterfat Pricing Factor in July 2019. A reduction from the Advanced Butterfat Pricing Factor would encourage expanded Class III processing in Montana and would address increased risk of market volatility of an advanced Class III butterfat price compared to the USDA Butterfat Price announced in the USDA Announcement of Class and Component Prices, which sets the Class III and Class IV butterfat price for the majority of milk in the United States.

Table 1 – Table 4 summarize the difference between the announced Montana Class III and Class II prices and the prices that would have resulted from the proposed price formulas for the 2015 – 2017 period. A positive number means that the federal price (or derivative of a federal price) was higher than the Montana announced price. A (negative) number means that the federal price (or derivative of a federal price) was lower than the Montana announced price.

Table 1 shows that on average during the 2015 – 2017 time period, the USDA Advanced Butterfat Pricing Factor was 22% higher than the Montana Class III butterfat price.

**Table 1. USDA Advanced Butterfat Pricing Factor vs Montana Class III Butterfat Price (2015 – 2017)**

| Average | Minimum | Maximum |
|---|---|---|
| $0.5346/lb | $0.3233/lb | $1.2627/lb |
| 22.09% | 12.89% | 41.59% |

Table 1a shows that under the proposed formula and price differential schedule, on average, the USDA Advanced Butterfat Pricing Factor less the proposed Montana Class III Butterfat Price Differential would have been approximately 15% higher than the announced Montana Class III butterfat price with the differential proposed at the beginning of the phase-in. At the end of the phase-in, the USDA Advanced Butterfat Pricing Factor less the proposed Montana Class III Butterfat Price Differential would have been approximately 19% higher than the announced Montana Class III butterfat price.

**Table 1a. Proposed Montana Class III Butterfat Price Formula Modeled for 2015 – 2017 Time Period vs. Announced Montana Class III Butterfat Price**

| Proposed Montana Class III Butterfat Price Differential | Average | Minimum | Maximum |
|---|---|---|---|
| $0.20/lb Before Jan. 1 2019 | $0.3346/lb | $0.1233/lb | $1.0627/lb |
| $0.15/lb Jan. 1 2019 – June 30, 2019 | $0.3846/lb | $0.1733/lb | $1.1127/lb |
| $0.10/lb After June 30, 2019 | $0.4346/lb | $0.2233/lb | $1.1627/lb |
| | | | |
| $0.20/lb Before Jan. 1 2019 | 14.78% | 5.91% | 37.47% |
| $0.15/lb Jan. 1 2019 – June 30, 2019 | 16.74% | 7.80% | 38.55% |
| $0.10/lb After June 30, 2019 | 18.60% | 9.56% | 39.60% |

Proposed Montana Class III Butterfat Price Formula: USDA Advanced Butterfat Pricing Factor Less Proposed Montana Class III Butterfat Price Differential)

Table 2 shows that on average during the 2015 – 2017 time period, the prices that would have resulted from the proposed Class III skim milk price formula would have been 2% lower than the announced Montana Class III skim milk price.

**Table 2. Proposed Class III Skim Milk Price Formula Modeled for 2015 – 2017 Time Period vs. Announced Montana Class III Skim Milk Price**

| Average | Minimum | Maximum |
|---|---|---|
| ($0.000286/lb) | ($0.017660/lb) | $0.016728/lb |
| (2.05%) | (43.71%) | 16.85% |

Proposed Montana Class III Skim Milk Price Formula: Lower of the: USDA Advanced Class III Skim Milk Pricing Factor or USDA Advanced Class IV Skim Milk Pricing Factor, in units of dollars per pound of skim milk

Table 3 shows that on average during the 2015 – 2017 time period, the prices that would have resulted from the proposed Class II butterfat price formula would have been 4% higher than the announced Montana Class II butterfat price.

**Table 3. Proposed Class II Butterfat Price Formula Modeled for 2015 – 2017 Time Period vs. Announced Montana Class II Butterfat Price**

| Average | Minimum | Maximum |
|---|---|---|
| $0.1085/lb | ($0.1778/lb) | $0.8432/lb |
| 4.25% | (6.88%) | 27.71% |

Proposed Montana Class II Butterfat Price Formula: USDA Advanced Butterfat Pricing Factor + $0.007/lb

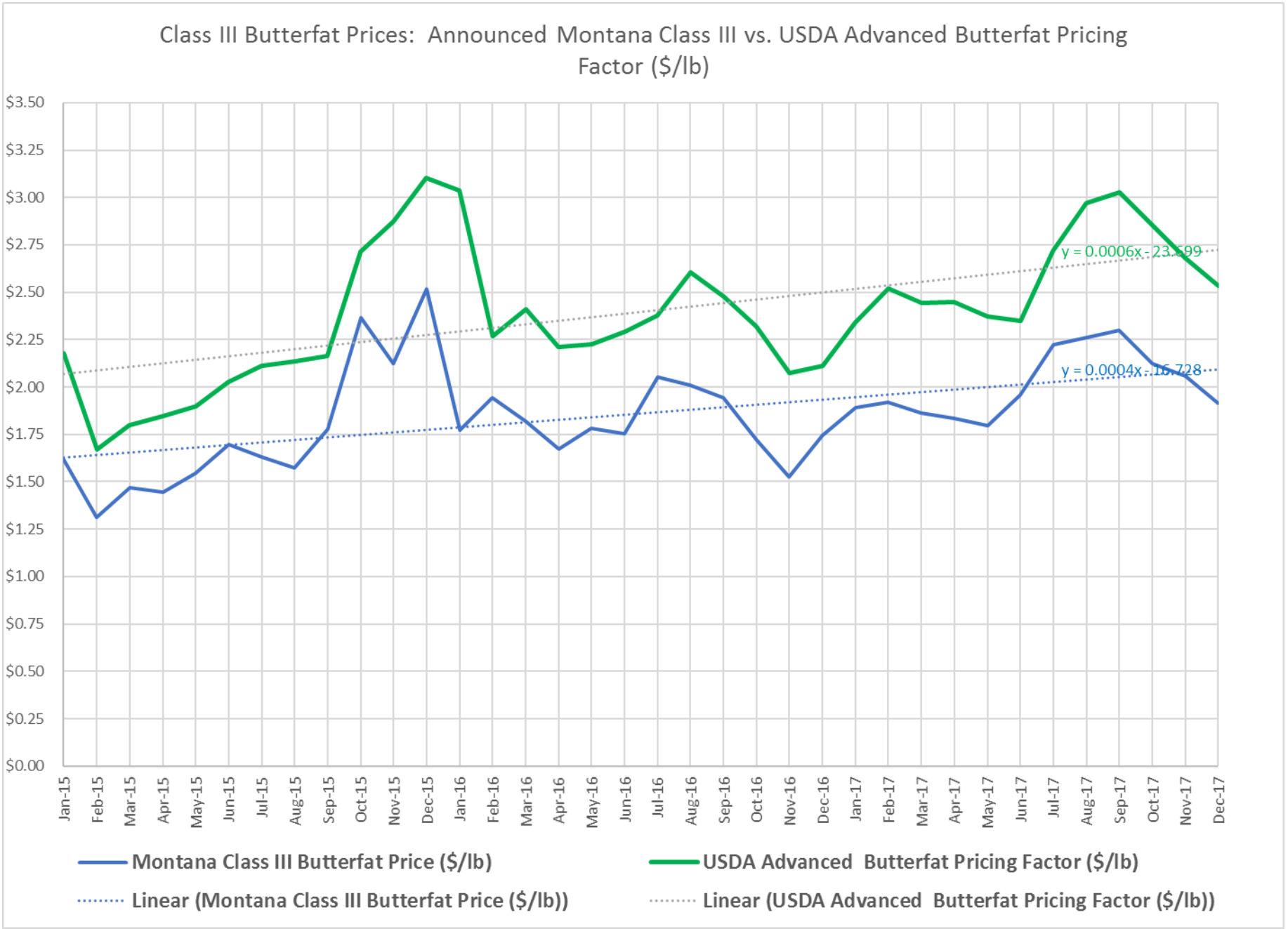
Table 4 shows that on average during the 2015 – 2017 time period, the proposed Class II skim milk price formula would have been 0.3% higher than the announced Montana Class II skim milk price.

**Table 4. Proposed Class II Skim Milk Price Formula Modeled for 2015 – 2017 Time Period vs. Announced Montana Class II Skim Milk Price**

| Average | Minimum | Maximum |
|---|---|---|
| $0.000451/lb | ($0.008262/lb) | $0.012725/lb |
| 0.31% | (11.24%) | 11.79% |

Proposed Montana Class II Skim Milk Price Formula: USDA Class II Skim Milk Price in units of dollars per pound of skim milk

The charts on the following pages show the announced Montana Class III and Class II prices and the prices that would have resulted from the proposed price formulas for the 2015 – 2017 period, except that the chart for Class III butterfat shows the USDA Advanced Butterfat Pricing Factor before application of the proposed Montana Class III Butterfat Price Differential, which as proposed would have reduced the price by $0.10/lb - $0.20/lb. The chart for Class III butterfat prices includes linear regression lines and formulas to illustrate the general trend of butterfat prices during the time and the increasing difference between federal butterfat prices and Montana Class III butterfat prices that resulted due to the current structure of the Montana Class III butterfat price formula.


Class III Butterfat Prices: Announced Montana Class III vs. USDA Advanced Butterfat Pricing Factor ($/lb)
$3.50
$3.25
$3.00
$2.75
$2.50
$2.25
$2.00
$1.75
$1.50
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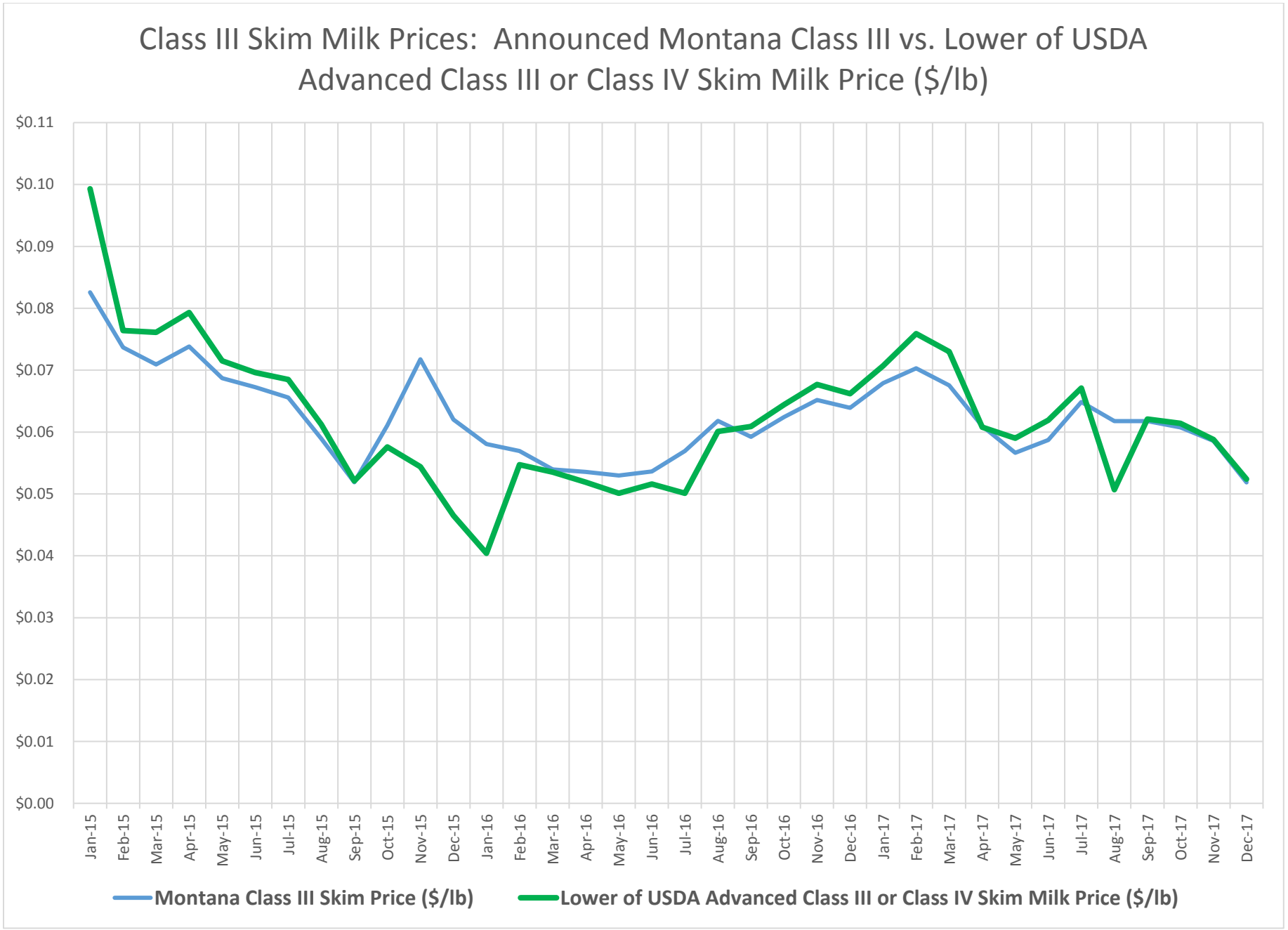
Montana Class III Butterfat Price ($/lb)
USDA Advanced Butterfat Pricing Factor ($/lb)
Linear (Montana Class III Butterfat Price ($/lb))
Linear (USDA Advanced Butterfat Pricing Factor ($/lb))


Class III Skim Milk Prices: Announced Montana Class III vs. Lower of USDA Advanced Class III or Class IV Skim Milk Price ($/lb)
$0.11
$0.10
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$0.03
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Apr-17
May-17
Jun-17
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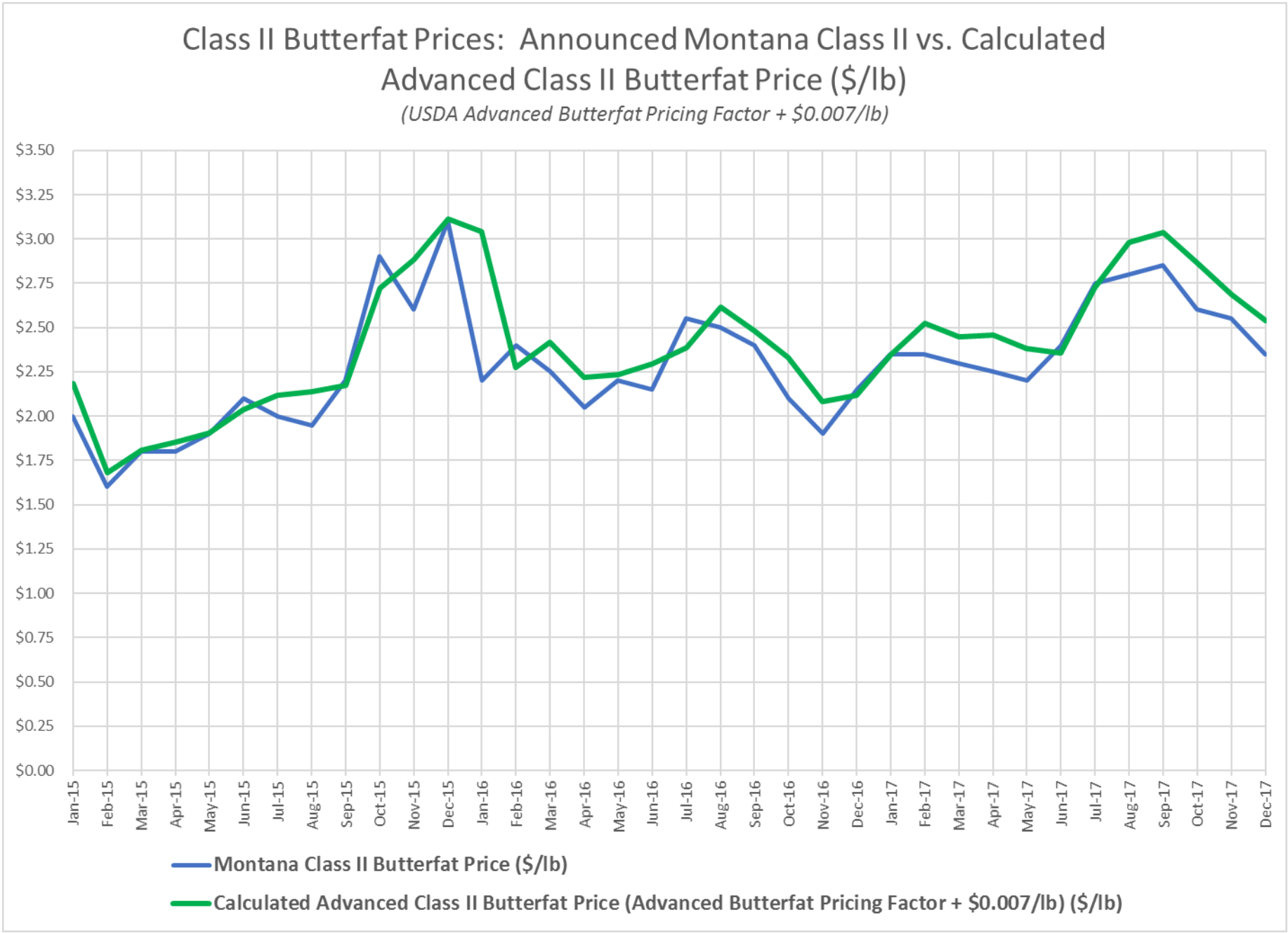
Montana Class III Skim Price ($/lb)
Lower of USDA Advanced Class III or Class IV Skim Milk Price ($/lb)


Class II Butterfat Prices: Announced Montana Class II vs. Calculated Advanced Class II Butterfat Price ($/lb)
(USDA Advanced Butterfat Pricing Factor + $0.007/lb)
$3.50
$3.25
$3.00
$2.75
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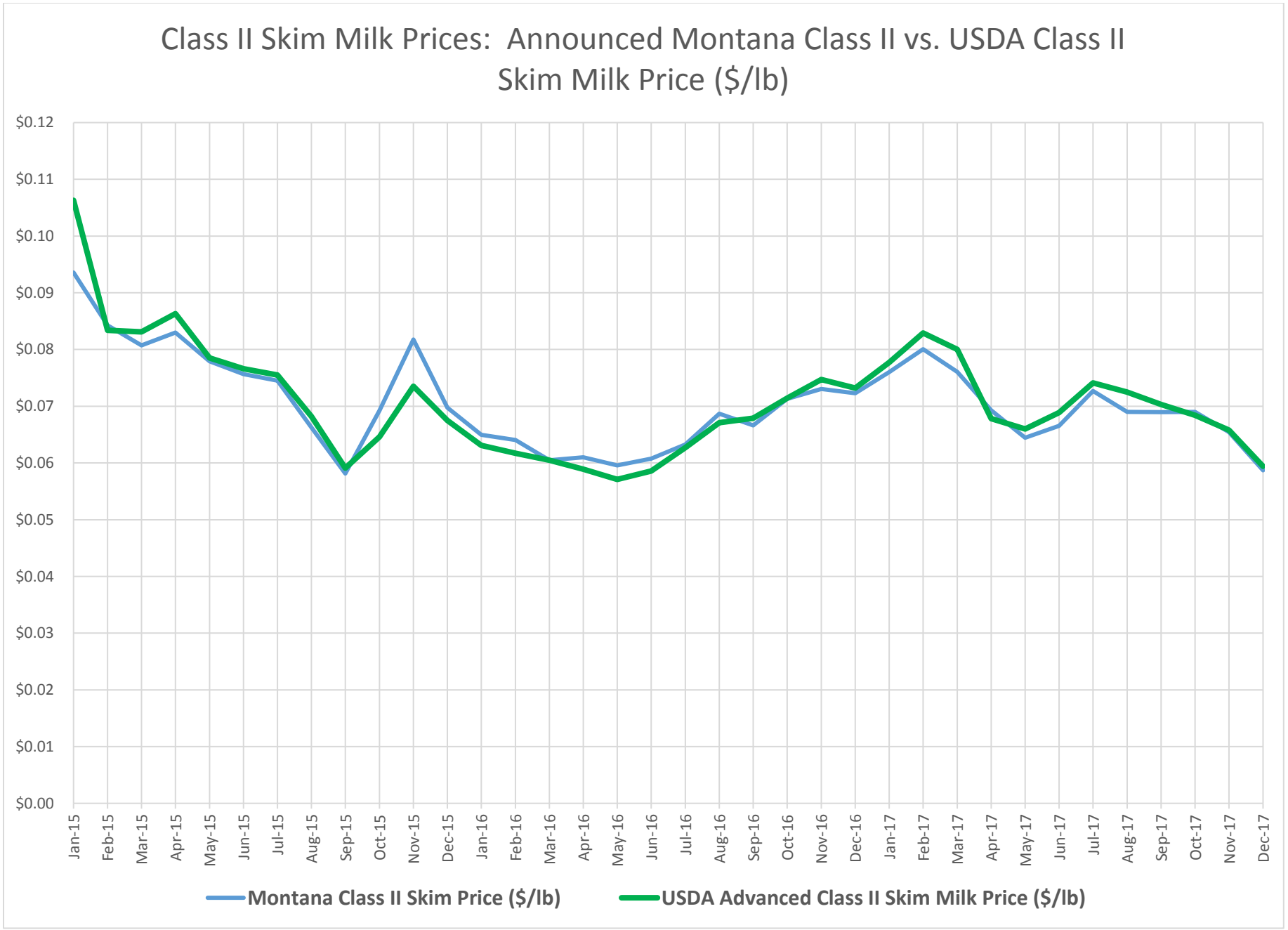
Dec-17
Montana Class II Butterfat Price ($/lb)
Calculated Advanced Class II Butterfat Price (Advanced Butterfat Pricing Factor + $0.007/lb) ($/lb)


Class II Skim Milk Prices: Announced Montana Class II vs. USDA Class II Skim Milk Price ($/lb)
$0.12
$0.11
$0.10
$0.09
$0.08
$0.07
$0.06
$0.05
$0.04
$0.03
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Mar-17
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Montana Class II Skim Price ($/lb)
USDA Advanced Class II Skim Milk Price ($/lb)

**Simulation of Impact of Proposed Price Formulas on Utilization Value**

The Milk Control Bureau developed models to simulate utilization value calculations for 2015 through 2017 using the distributor reports submitted during the period and utilization calculations consistent with current administrative rules. The following tables summarize the simulated impacts the proposed Class II and Class III price formulas would have had for the period.

- Calculations were made using Montana's historic announced milk prices. Note that utilization value calculations made using Montana's historic announced prices may be slightly different than the historic pool utilization values. The differences are not material.
- A second set of calculations were made using prices that would have resulted from current Class I price formulas and the proposed Class II and Class III price formulas.
- The difference in total utilization value does not equal the combined differences of the Class II and Class III utilization values because inventory reclassification adjustments for Class I milk are impacted by the proposed Class III price formulas. This difference is not material (less than 0.01% difference for the 2015-2017 period in terms of total utilization value).

***Class III Utilization Value***

**Table 5. Simulated Poolwide Change in Class III Milk Utilization Value – Before Surplus Adjustment (2015 – 2017)**

| Poolwide Change in Class III Milk Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Class III Utilization Value - Before Surplus Adjustment ($) | $5,224,787 | $6,010,712 | $6,796,637 |
| Difference (% Change) | 14.57% | 16.76% | 18.96% |
| Class III Butterfat Utilization Value - Before Surplus Adjustment ($) | $5,270,697 | $6,056,622 | $6,842,547 |
| Difference (% Change) | 18.11% | 20.81% | 23.51% |
| Class III Skim Milk Utilization Value - Before Surplus Adjustment ($) | ($45,910) | ($45,910) | ($45,910) |
| Difference (% Change) | (0.68%) | (0.68%) | (0.68%) |

Table 5 shows the increase in the Class III butterfat utilization value (before adding the surplus adjustment) that would have occurred over the three-year period simulation for the proposed Montana Class III skim milk formula and the Montana Class III butterfat price formula (for each of the proposed Montana Class III Butterfat Price Differentials, were the price differentials in effect for the entire three-year period).

- Proposed Skim Milk Price Formula. The proposed Class III skim milk price formula would have resulted in an overall decrease in Class III skim milk utilization value of just under 1%.
- Proposed Class III Butterfat Price Formula. With the proposed Class III butterfat price formula, the proposed Montana Class III Butterfat Price Differentials would have increased the Class III butterfat utilization value by approximately 18.1% with a $0.20/lb price differential and by approximately 23.5% with a $0.10/lb price differential.
- Proposed Class III Price Formulas – Combined Utilization Value. With the proposed Montana Class III Butterfat Price Differentials, the combined Class III utilization value (before the surplus adjustment) would have increased by approximately 14.6% with a $0.20/lb price differential and almost 19% with a $0.10/lb price differential.

Table 5a shows that on an average annualized basis, the Class III butterfat utilization value would have increased by approximately $1.76 million/yr with a $0.20/lb Montana Class III Butterfat Price Differential and by approximately $2.28 million/yr with a $0.10/lb Montana Class III Butterfat Price Differential. This accounts for all of the increase that would have occurred for the Class III utilization value. The proposed Class III skim milk price formula would have decreased the Class III skim milk utilization value by about $15,000 per year before factoring in the surplus adjustment.

**Table 5a. Simulated Poolwide Change in Class III Milk Utilization Value – Before Surplus Adjustment (Annualized Average)**

| Poolwide Change in Class III Milk Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Class III Utilization Value - Before Surplus Adjustment ($/yr average) | $1,741,596 | $2,003,571 | $2,265,546 |
| Class III Butterfat Utilization Value - Before Surplus Adjustment ($/yr average) | $1,756,899 | $2,018,874 | $2,280,849 |
| Class III Skim Milk Utilization Value - Before Surplus Adjustment ($/yr average) | ($15,303) | ($15,303) | ($15,303) |

Class III Bulk Surplus Sales Adjustment = Value Received - Montana Class III Value – Related Transportation Costs

The above formula shows how the Class III Bulk Surplus Sales Adjustment is determined. The proposed Class III price formulas have additional impact to the Class III skim milk utilization value when the Class III bulk surplus adjustment is factored in. While the proposed price formulas increase the basis value (Montana Class III value) of the milk utilized as Class III bulk surplus milk, the value received for that milk (actual sales value from buyers in another state) and related transportation costs do not change. The result is that with the proposed changes, the Class III Bulk Surplus Sales Adjustment becomes more negative, lowering the Class III skim milk utilization value. So, while producers benefit from the proposed Class III price formulas, some of that benefit is reduced by larger negative Class III Bulk Sales Surplus Adjustments.

Table 6 shows the impact that the proposed Class III price formulas would have on the Class III Bulk Milk Surplus Sales Adjustment and the overall Class III utilization value. The change in the Class III Bulk Surplus Sales Adjustment would primarily be driven by the increase in the Montana Class III butterfat utilization value that would result from the proposed formulas. Surplus sales adjustments only affect skim milk utilization value.

**Table 6. Simulated Poolwide Change in Class III Bulk Surplus Sales Adjustment (2015 – 2017)**

| Poolwide Change in Class III Milk Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Class III Skim Milk Utilization Value - Class III Bulk Surplus Sales Adjustment ($) | ($743,211) | ($861,160) | ($979,110) |
| Difference (% Change) | 87.62% | 101.52% | 115.43% |

Table 6a shows the impact of the proposed Class III price formulas and the proposed Montana Class III Butterfat Price Differentials on an average annualized basis.

**Table 6a. Simulated Poolwide Change in Class III Bulk Surplus Sales Adjustment (Annualized Average)**

| Poolwide Change in Class III Milk Utilization Value | | | |
|---|---|---|---|
| | | | |
| **Montana Class III Butterfat Price Differentials:** | $0.20/lb | $0.15/lb | $0.10/lb |
| | | | |
| **Class III Skim Milk Utilization Value - Class III Bulk Surplus Sales Adjustment ($/yr average)** | ($247,737) | ($287,053) | ($326,370) |

Table 7 shows the increase in the Class III butterfat utilization value (after adding the surplus adjustment) that would have occurred over the three-year period simulation for the proposed Montana Class III skim milk formula and the Montana Class III butterfat price formula (for each of the proposed Montana Class III Butterfat Price Differentials, were the price differentials in effect for the entire three-year period).

- Proposed Skim Milk Price Formula. The proposed Class III skim milk price formula, in combination with the change in the surplus adjustment driven by the change in the Class III butterfat price formula, would have decreased Class III skim milk utilization value over 13% with a $0.20/lb price differential and over 17% with a $0.10/lb price differential.
- Proposed Class III Butterfat Price Formula. With the proposed Class III butterfat price formula, the proposed Montana Class III Butterfat Price Differentials would have increased the Class III butterfat utilization value by approximately 18.1% with a $0.20/lb price differential and approximately 23.5% with a $0.10/lb price differential.
- Proposed Class III Price Formulas – Combined Utilization Value. With the proposed Montana Class III Butterfat Price Differentials, the combined Class III utilization value (after the surplus adjustment) would have increased by approximately 12.8% with a $0.20/lb price differential and approximately 16.6% with a $0.10/lb price differential.

**Table 7. Simulated Poolwide Change in Class III Milk Utilization Value – After Surplus Adjustment (2015 – 2017)**

| Poolwide Change in Class III Milk Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Class III Utilization Value - After Surplus Adjustment ($) | $4,481,576 | $5,149,552 | $5,817,527 |
| Difference (% Change) | 12.80% | 14.71% | 16.62% |
| Class III Butterfat Utilization Value - After Surplus Adjustment ($) | $5,270,697 | $6,056,622 | $6,842,547 |
| Difference (% Change) | 18.11% | 20.81% | 23.51% |
| Class III Skim Milk Utilization Value - After Surplus Adjustment ($) | ($789,121) | ($907,070) | ($1,025,020) |
| Difference (% Change) | (13.36%) | (15.35%) | (17.35%) |

Table 7a shows that on an average annualized basis the Class III butterfat utilization value would have increased by approximately $1.76 million/yr with a $0.20/lb Montana Class III Butterfat Price Differential and approximately $2.28 million/yr with a $0.10/lb price differential. This accounts for all of the increase that would have occurred for the Class III utilization value. After the surplus adjustment, which is impacted by the change in the Class III butterfat price formula, the Class III skim milk utilization would have decreased by approximately $263,000/yr with a $0.20/lb Montana Class III Butterfat Price Differential and would have decreased by approximately $342,000/yr with a $0.10/lb price differential. Overall, the Class III utilization value, after the surplus adjustment would have increased by approximately $1.49 million/yr with a $0.20/lb Montana Class III Butterfat Price Differential and over $1.9 million/yr with a $0.10/lb price differential.

**Table 7a. Simulated Poolwide Change in Class III Milk Utilization Value – After Surplus Adjustment (Annualized Average)**

| Poolwide Change in Class III Milk Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Class III Utilization Value - After Surplus Adjustment ($/yr average) | $1,493,859 | $1,716,517 | $1,939,176 |
| Class III Butterfat Utilization Value - After Surplus Adjustment ($/yr average) | $1,756,899 | $2,018,874 | $2,280,849 |
| Class III Skim Milk Utilization Value - After Surplus Adjustment ($/yr average) | ($263,040) | ($302,357) | ($341,673) |

***Class II Utilization Value***

Table 8 shows, for the three-year period, that the proposed Class II price formulas would have resulted in an overall increase in Class II butterfat utilization value of just under 4% and an increase in Class II skim milk utilization value of just under 1%. For the simulation, the impact of the proposed Montana Class III Butterfat Price Differentials is immaterial. The proposed Montana Class III Butterfat Price Differentials would impact the Class II Butterfat Utilization value because of bulk inventory reclassified as Class II utilization; because the Class III butterfat price is the base price, and the adjustment is based on the difference between the Class II and Class III price. The proposed Class II price formulas would have resulted in an overall Class II utilization value a little over 3% higher than the current price formulas for the three-year period.

**Table 8. Simulated Poolwide Change in Class II Milk Utilization Value (2015 – 2017)**

| Poolwide Change in Class II Milk Utilization Value | | | |
|---|---|---|---|
| **Montana Class III Butterfat Price Differentials:** | $0.20/lb | $0.15/lb | $0.10/lb |
| **Class II Utilization Value ($)** | $278,317 | $276,371 | $274,426 |
| **Difference (% Change)** | 3.37% | 3.35% | 3.33% |
| **Class II Butterfat Utilization Value ($)** | $265,743 | $263,798 | $261,852 |
| **Difference (% Change)** | 3.96% | 3.93% | 3.91% |
| **Class II Skim Milk Utilization Value ($)** | $12,574 | $12,574 | $12,574 |
| **Difference (% Change)** | 0.81% | 0.81% | 0.81% |

Table 8a shows that on an average annualized basis the Class II butterfat utilization value would have increased by approximately $87,000/yr. This accounts for the vast majority of the increase that would have occurred for the Class II utilization value. The Class II skim milk utilization would have increased by approximately $4,000/yr. Overall, the Class II utilization value would have increased by approximately $91,000/yr.

**Table 8a. Simulated Poolwide Change in Class II Milk Utilization Value (Annualized Average)**

| Poolwide Change in Class II Milk Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Class II Utilization Value ($/yr average) | $92,772 | $92,124 | $91,475 |
| Class II Butterfat Utilization Value ($/yr average) | $88,581 | $87,933 | $87,284 |
| Class II Skim Milk Utilization Value ($/yr average) | $4,191 | $4,191 | $4,191 |

***Pool Utilization Value***

Table 9 shows the impact to the pool utilization value that would have occurred over the three-year period simulation for the proposed Montana Class II and Class III price formulas (for each of the proposed Montana Class III Butterfat Price Differentials, were the price differentials in effect for the entire three-year period).

- Butterfat Utilization Value. With the proposed Class II and Class III price formulas, the proposed Montana Class III Butterfat Price Differentials would have increased the pool butterfat utilization value by 8.13% with a $0.20/lb price differential and 10.44% with a $0.10/lb price differential.
- Skim Milk Utilization Value. With the proposed Class II and Class III price formulas, the proposed Montana Class III Butterfat Price Differentials would have decreased the pool skim milk utilization value by 1.10% with a $0.20/lb price differential and 1.43% with a $0.10/lb price differential.
- Combined Pool Utilization Value. With the proposed Class II and Class III price formulas, the proposed Montana Class III Butterfat Price Differentials would have increased the pool utilization value by 3.46% with a $0.20/lb price differential and 4.43% with a $0.10/lb price differential.

**Table 9. Simulated Poolwide Change in Total Utilization Value (2015 – 2017)**

| Poolwide Change in Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Pool Utilization Value ($) | $4,771,959 | $5,437,988 | $6,104,018 |
| Difference (% Change) | 3.46% | 3.94% | 4.43% |
| Pool Butterfat Utilization Value ($) | $5,536,441 | $6,320,420 | $7,104,399 |
| Difference (% Change) | 8.13% | 9.29% | 10.44% |
| Pool Skim Milk Utilization Value ($) | ($764,482) | ($882,431) | ($1,000,381) |
| Difference (% Change) | (1.10%) | (1.26%) | (1.43%) |

Overall, the pool utilization value would have increased by approximately $1.59 million/yr with a $0.20/lb Montana Class III Butterfat Price Differential to approximately $2.03 million/yr with a $0.10/lb price differential.

**Table 9a. Simulated Poolwide Change in Total Utilization Value (Annualized Average)**

| Poolwide Change in Utilization Value | | | |
|---|---|---|---|
| Montana Class III Butterfat Price Differentials: | $0.20/lb | $0.15/lb | $0.10/lb |
| Pool Utilization Value ($/yr average) | $1,590,653 | $1,812,663 | $2,034,673 |
| Pool Butterfat Utilization Value ($/yr average) | $1,845,480 | $2,106,807 | $2,368,133 |
| Pool Skim Milk Utilization Value ($/yr average) | ($254,827) | ($294,144) | ($333,460) |

**Direct Impact on Businesses**

***Producers***

Producers are dairy farms. There are 56 licensed producers in Montana, all of which are directly impacted by the proposed rule change because the price formulas determine how much the producers are paid for milk sold to distributors located in Montana. All Montana producers are small businesses.

A method of evaluating the impact of the proposed price formulas on producers is to analyze the percentage change in the utilization value that can be attributed to each proposed price formula, as well as to evaluate the overall change in utilization value. From a producer's perspective, the utilization value is revenue from sales of milk.

Table 10a – Table 10d show the impact of the proposed price formulas and proposed Montana Class III Butterfat Price Differentials would have had on poolwide utilization values relative to the current price formulas as simulated for 2015 – 2017. Positive percentages mean that a proposed price formula change would have increased the utilization value. Negative percentages (%) mean that a proposed price formula change would have decreased the utilization value.

**Table 10a. Impact of Proposed Price Formulas and Proposed Montana Class III Butterfat Price Differentials Modeled for 2015 – 2017 Time Period**

| Proposed Montana Class III Butterfat Price Differential | Overall Impact to Poolwide Total Utilization Value |
|---|---|
| $0.20/lb Before January 1 2019 | 3.46% increase |
| $0.15/lb January 1, 2019 – June 30, 2019 | 3.94% increase |
| $0.10/lb After June 30, 2019 | 4.43% increase |

**Table 10b. Impact of Proposed Price Formulas on Poolwide Utilization Value (2015 – 2017): $0.20/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Poolwide Butterfat Utilization Value | Impact to Poolwide Skim Milk Utilization Value | Impact to Poolwide Total Utilization Value |
|---|---|---|---|
| Class III Butterfat | 7.74% | | 3.82% |
| Class III Skim Milk | | (1.13%) | (0.57%) |
| **Combined Class III** | | | **3.25%** |
| Class II Butterfat | 0.39% | | 0.19% |
| Class II Skim Milk | | 0.02% | 0.01% |
| **Combined Class II** | | | **0.20%** |
| Class I Butterfat | 0.00% | | 0.00% |
| Class I Skim Milk (Inventory Reclassification) | | 0.02% | 0.01% |
| **Combined Class I** | | | **0.01%** |
| **Overall Impact** | **8.13%** | **(1.10%)** | **3.46%** |

**Table 10c. Impact of Proposed Price Formulas on Poolwide Utilization Value (2015 – 2017): $0.15/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Poolwide Butterfat Utilization Value | Impact to Poolwide Skim Milk Utilization Value | Impact to Poolwide Total Utilization Value |
|---|---|---|---|
| Class III Butterfat | 8.90% | | 4.39% |
| Class III Skim Milk | | (1.30%) | (0.66%) |
| **Combined Class III** | | | **3.73%** |
| Class II Butterfat | 0.39% | | 0.19% |
| Class II Skim Milk | | 0.02% | 0.01% |
| **Combined Class II** | | | **0.20%** |
| Class I Butterfat | 0.00% | | 0.00% |
| Class I Skim Milk (Inventory Reclassification) | | 0.02% | 0.02% |
| **Combined Class I** | | | **0.01%** |
| **Overall Impact** | **9.29%** | **(1.26%)** | **3.94%** |

**Table 10d. Impact of Proposed Price Formulas on Poolwide Utilization Value (2015 – 2017): $0.10/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Poolwide Butterfat Utilization Value | Impact to Poolwide Skim Milk Utilization Value | Impact to Poolwide Total Utilization Value |
|---|---|---|---|
| Class III Butterfat | 10.05% | | 4.96% |
| Class III Skim Milk | | (1.47%) | (0.74%) |
| **Combined Class III** | | | **4.22%** |
| Class II Butterfat | 0.38% | | 0.19% |
| Class II Skim Milk | | 0.02% | 0.01% |
| **Combined Class II** | | | **0.20%** |
| Class I Butterfat | 0.00% | | 0.00% |
| Class I Skim Milk (Inventory Reclassification) | | 0.02% | 0.01% |
| **Combined Class I** | | | **0.01%** |
| **Overall Impact** | **10.43%** | **(1.43%)** | **4.43%** |

For the 2015 – 2017 period, only the proposed Class III butterfat formula would have had a significant impact on the poolwide utilization value. The proposed Class III skim milk price formula, Class II skim milk price formula, and Class II butterfat price formula would not have had a significant impact on poolwide utilization value.

The proposed price formulas would significantly impact Montana producers. Producers with milk having higher butterfat content than the state average would have received a greater increase in revenue. Producers with milk having lower butterfat content than the state average would have receive a lower increase in revenue. All producers would have experienced an increase in revenue compared to current price formulas.

The Milk Production, Disposition, and Income 2017 Summary authored by the United States Department of Agriculture National Agricultural Statistics Service in April 2018 shows that Montana producers had among the lowest all milk average returns (per cwt) in 2017 and 2016 in the United States. This figure is a revenue measure that is not reduced by costs withheld by distributors or costs paid directly by producers. Montana producers, as a group compared to producers elsewhere in the United States, have substantially higher freight costs to ship milk from the farm to the distributor.

***Producer-Distributors***

Producer-distributors are dairy farms that also operate milk processing plants. In FY2018 three entities are licensed by the milk control bureau as producer-distributors.

Producer-distributors generally do not sell milk to distributors but instead process the milk produced by the business's dairy farm. A producer-distributors does not purchase milk because it is vertically integrated with the dairy farm portion of the business. Because of these two operational characteristics, producer-distributors are not generally directly impacted by price formula rules.

However, one of Montana's licensed producer-distributors (Montana Correctional Enterprises, a proprietary unit of the Montana Department of Corrections) sells raw milk to a Montana distributor, and that milk sale is subject to Montana's price formula rules as if the producer-distributor were a producer. As such, the impact is the same as what is described above for producers and is a significant impact. Additionally, because of provisions in administrative rules, the milk processing portion of Montana Correctional Enterprises' (MCE) operation is treated as if it were a distributor and has its utilization value added into the Montana Pool, and in that way, MCE is directly impacted in the same manner as distributors.

Montana Correctional Enterprises is not a small business.

***Distributors***

Distributors market dairy products to retail sellers, and some also operate milk processing plants. Montana's price formula rules regulate the price Montana distributors must pay Montana producers for raw milk produced in Montana. Three Montana distributors are directly affected by the proposed price formulas because they purchase raw milk from Montana producers.

A method of evaluating the impact of the proposed price formulas on distributors is to analyze the percentage change in the utilization value that can be attributed to each proposed price formula, as well as to evaluate the overall change in utilization value.

Table 11a – Table 11d show the impact of the proposed price formulas and proposed Montana Class III Butterfat Price Differentials would have had on Class III utilization values relative to the current price formulas as simulated for 2015 – 2017. Positive percentages mean that a proposed price formula change would have increased the utilization value. Negative percentages (%) mean that a proposed price formula change would have decreased the utilization value.

**Table 11a. Impact of Proposed Price Formulas and Proposed Montana Class III Butterfat Price Differentials Modeled for 2015 – 2017 Time Period**

| Proposed Montana Class III Butterfat Price Differential | Impact to Class III Butterfat Utilization Value |
|---|---|
| $0.20/lb Before January 1, 2019 | 18.11% increase |
| $0.15/lb January 1, 2019 – June 30, 2019 | 20.81% increase |
| $0.10/lb After June 30, 2019 | 23.51% increase |

**Table 11b. Impact of Proposed Price Formulas on Class III Utilization Value (2015 – 2017): $0.20/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Class III Butterfat Utilization Value | Impact to Class III Skim Milk Utilization Value | Impact to Class III Total Utilization Value |
|---|---|---|---|
| Class III Butterfat – Before Surplus | 18.11% | | 15.06% |
| Class III Skim Milk – Before Surplus | | (0.78%) | (0.13%) |
| **Combined Class III – Before Surplus** | | | **14.93%** |
| Class III Bulk Surplus Sales Adjustment | | (12.58%) | (2.12%) |
| **Overall Impact – After Surplus Adjustment** | **18.11%** | **(13.36%)** | **12.80%** |

**Table 11c. Impact of Proposed Price Formulas on Class III Utilization Value (2015 – 2017): $0.15/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Class III Butterfat Utilization Value | Impact to Class III Skim Milk Utilization Value | Impact to Class III Total Utilization Value |
|---|---|---|---|
| Class III Butterfat – Before Surplus | 20.81% | | 17.30% |
| Class III Skim Milk – Before Surplus | | (0.78%) | (0.13%) |
| **Combined Class III – Before Surplus** | | | **17.17%** |
| Class III Bulk Surplus Sales Adjustment | | (14.58%) | (2.46%) |
| **Overall Impact – After Surplus Adjustment** | **20.81%** | **(15.35%)** | **14.71%** |

**Table 11d. Impact of Proposed Price Formulas on Class III Utilization Value (2015 – 2017): $0.10/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Class III Butterfat Utilization Value | Impact to Class III Skim Milk Utilization Value | Impact to Class III Total Utilization Value |
|---|---|---|---|
| Class III Butterfat – Before Surplus | 23.51% | | 19.55% |
| Class III Skim Milk – Before Surplus | | (0.78%) | (0.13%) |
| **Combined Class III – Before Surplus** | | | **19.42%** |
| Class III Bulk Surplus Sales Adjustment | | (16.57%) | (2.80%) |
| **Overall Impact – After Surplus Adjustment** | **23.51%** | **(17.35%)** | **16.62%** |

The proposed Class III butterfat formula would have a significant impact on distributor's Class III butterfat utilization value. The utilization value of Class III butterfat would have increased by roughly 18.1 – 23.5% compared to the utilization value resulting from the current Class III butterfat formula for the 2015 – 2017 period.

For Montana's distributors, the Class III butterfat utilization value accounts for over 80% of the Class III utilization value, over 40% of total butterfat utilization value, and over 20% of total utilization value. As such, the increase in the Class III butterfat utilization value that would result from the proposed Class III butterfat price formula would significantly impact total utilization value in the simulations. See Tables 11b – 11d. Butterfat that Montana distributors utilize in Class III is primarily the byproduct of skimming cream off milk utilized for Class I fluid products. This byproduct is typically sold in bulk to butter plants located outside of Montana at a price tied to national prices. Most Class III butterfat is utilized in bulk cream sales. The proposed Class III butterfat formula would have significant impact on the distributors' cost for this sale. Other Class III butterfat utilized by Montana distributors is contained in bulk milk sold to Class III processors inside and outside of Montana. This would increase the cost of the Class III bulk milk sales to processors in Montana, but would ultimately not increase the cost of Class III bulk milk sales to processors outside of Montana because of the bulk surplus sales adjustment provided for in Montana's administrative rules. Class III butterfat is also utilized or accounted for as Class III shrink and ending bulk inventory. The proposed Class III price formula would increase the cost of Class III shrink and bulk inventory, but the increase in the cost of bulk inventory would be offset somewhat by a reduction in inventory valuation adjustments, since there would be a much smaller difference in the Class III butterfat price and Class II and Class I butterfat prices. The impact to Montana distributors may result in lower profit margins or increased processed product prices that would need to be negotiated with customers. The current Class III butterfat price formula encourages distributors to market cream byproduct as Class III bulk cream sales. Potentially, Montana distributors may make product mix changes to utilize more byproduct cream in Class II or even Class I, if market trends persist for higher fat fluid milk. However, it is also possible that negative impact to profit margins may drive Montana distributors to make operational changes, which may include plant closures.

Before factoring the impact that the proposed Class III skim milk price formula would have had on the Class III Bulk Surplus Sales Adjustment, the proposed Class III skim milk price formula would not have had a significant impact on the Class III skim milk utilization value since it would have reduced the Class III skim milk utilization value by only 0.78% for the 2015 – 2017 period. The impact of the proposed Class III price formulas to the Class

III Bulk Surplus Milk Sales Adjustment does not impact Montana processors because the Class III Bulk Surplus Milk Sales Adjustment prevents distributors from losing money on sales of bulk surplus milk. The impact of the Class III Bulk Surplus Milk Sales Adjustment is included in the tables to allow readers to reconcile the total change in Class III utilization values with the impact of the proposed Class III price formulas on producers.

**Table 12. Impact of Proposed Price Formulas on Class II Utilization Value (2015 – 2017)**
**$0.10/lb Montana Class III Butterfat Price Differential**

| Proposed Price Formula | Impact to Class II Butterfat Utilization Value | Impact to Class II Skim Milk Utilization Value | Impact to Class II Total Utilization Value |
|---|---|---|---|
| Class II Butterfat | 3.91% | | 3.17% |
| Class II Skim Milk | | 0.81% | 0.15% |
| **Combined Class II** | | | **3.33%** |

Table 12 shows the impact of the proposed price formulas on the Class II utilization value. The proposed Class II butterfat formula (with a $0.10/lb Montana Class III Butterfat Price Differential) would have increased distributors' Class II butterfat utilization value by 3.91% for the 2015 – 2017 period compared to the utilization value resulting from the current Class II butterfat formula. Table 8 shows that the other proposed Montana Class III Butterfat Price Differentials would change this very little.

The proposed Class II skim milk price formula would not have had a significant impact on distributors' Class II skim milk utilization value since it would have increased the Class II skim milk utilization value by only 0.15% for the 2015 – 2017 period.

Tables 10a – 10d show the combined impact the proposed price formulas and proposed Montana Class III Butterfat Price Differentials would have had for the 2015 – 2017 time period compared to the current price formulas. The proposed Class III price formula would have significant impact to the poolwide butterfat utilization value and the poolwide total utilization value. Distributors would be impacted equally in that all pay for the utilization of butterfat and skim milk based on the same formulas for each class of utilization. To the extent that total milk cost would change for a given distributor differently than another, the impact relates to each distributor's product mix, the extent to which the distributor imports raw milk from outside of Montana, and factors related to bulk surplus milk sales. Ultimately, distributors' net income neither decreases nor increases as the result of bulk surplus milk sales.

None of the directly impacted distributors are small businesses.

**Summary of Analysis – Significant and Direct Impact on Small Businesses**

The Milk Control Bureau established the threshold for a "significant" impact of the proposed change of price formulas **for producers** as being a change to the total skim utilization value, total butterfat utilization value, or total utilization value equal to or greater than 2.5% (in magnitude) of the related utilization values resulting from current price formulas for calculations simulating the current administrative rules for the 2015 – 2017 time period.

The Milk Control Bureau established the threshold for a "significant" impact of the proposed change of price formulas **for distributors** as being a change to the Class III skim utilization value; Class III butterfat utilization

value; Class II skim utilization value; Class III butterfat utilization value; poolwide total skim utilization value; poolwide total butterfat utilization value, or poolwide total utilization value equal to or greater than 2.5% (in magnitude) of the related utilization values resulting from current price formulas for calculations simulating the current administrative rules for the 2015 – 2017 time period.

***(1) Proposed Class III Price Formulas:***

Small businesses significantly and directly impacted include 54 producers. Only the proposed Class III butterfat formula results in an absolute change that exceeds the 2.5% threshold. Depending on the Montana Class III Butterfat Price Differential, the proposed Class III butterfat formula would have increased producers' butterfat utilization value by 7.74% - 10.05% and would have increased producers' total utilization value by 3.46% - 4.43% for the simulated 2015 – 2017 time period.

The proposed Class III price formulas would have significantly impacted one producer-distributor and three distributors in a similar manner. These businesses are not small businesses. Whereas the proposed price formulas would increase revenue to producers, the proposed changes would increase costs to distributors.

***(2) Proposed Class II Price Formulas:***

No directly impacted small businesses would have been significantly impacted by the proposed Class II price formulas for the simulated 2015 – 2017 time period.

The proposed Class II butterfat price formula would have significantly impacted one producer-distributor and three distributors. These businesses are not small businesses. Only the proposed Class II butterfat formula results in an absolute change that exceeds the 2.5% threshold. If the Montana Class III Butterfat Price Differential is $0.10/lb, the proposed Class II butterfat formula would increase distributors' Class II butterfat utilization value by 3.91% and would have increased distributors' Class II utilization value by 3.33% for the 2015 – 2017 time period. This varies little for other proposed Montana Class III Butterfat Price Differentials.